

### **ABSTRACT OF THE DISCLOSURE**

The desulfurization of a hydrocarbon-containing fraction, e.g. kerosene or gas oil that comprises at least one stage of treatment of said fraction with an oxidizing agent in the presence of a catalyst of said oxidation, in which said catalyst comprises at least one oxide of chemical formula  $M_xO_y$ , whereby M is an element that is selected from the group that consists of the elements of groups IV-B, V-B or VI-B of the periodic table.